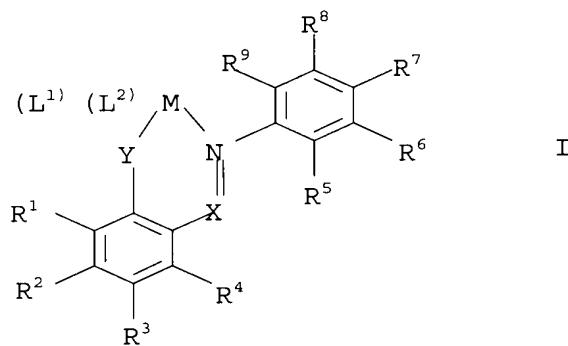


IN THE CLAIMS

Claim 1 (Currently Amended): A process for preparing an aqueous polymer dispersion, by polymerizing a ~~miniemulsion having an average droplet diameter  $\leq 1000\text{ nm}$~~  of as components, one or more olefins in an aqueous medium in the presence of one or more dispersants, and, optionally, of organic solvents, said components forming a miniemulsion having an average droplet diameter  $\leq 1000\text{ nm}$ , said process comprising catalyzing, in the miniemulsion, the polymerization of said one or more olefins in the presence of one or more metal complex compounds of the formula I:



wherein the substituents and indices have the following meanings:

M is a transition metal from groups 7 to 10 of the periodic table of the elements;

L<sup>1</sup> denotes is selected from the group consisting of phosphanes (R<sup>16</sup>)<sub>x</sub>PH<sub>3-x</sub> [[or]] and amines (R<sup>16</sup>)<sub>x</sub>NH<sub>3-x</sub> with identical or different radicals R<sup>16</sup>, ethers (R<sup>16</sup>)<sub>2</sub>O, H<sub>2</sub>O, alcohols (R<sup>16</sup>)OH, pyridine, pyridine derivatives of the formula

C<sub>5</sub>H<sub>5-x</sub>(R<sup>16</sup>)<sub>x</sub>N, CO, C<sub>1</sub>-C<sub>12</sub> alkynitriles, C<sub>6</sub>-C<sub>14</sub> aryl nitriles [[or]] and  
ethylenically unsaturated double bond systems, x denoting an integer from 0 to  
3;

L<sup>2</sup> denotes is selected from the group consisting of halide ions, amide ions  
(R<sup>16</sup>)<sub>h</sub>NH<sub>2-h</sub>, h denoting an integer from 0 to 2, and also C<sub>1</sub>-C<sub>6</sub> alkyl anions,  
allyl anions, benzyl anions [[or]] and aryl anions,

and optionally, L<sup>1</sup> and L<sup>2</sup> may be linked to one another by one or more  
covalent bonds;

X: is CR or nitrogen atom (N);

R: is hydrogen,  
C<sub>1</sub>-C<sub>6</sub> alkyl groups,  
C<sub>7</sub>-C<sub>13</sub> aralkyl radicals, or  
C<sub>6</sub>-C<sub>14</sub> aryl groups, unsubstituted or substituted by one or more C<sub>1</sub>-C<sub>12</sub> alkyl  
groups, halogens, mono- or polyhalogenated C<sub>1</sub>-C<sub>12</sub> alkyl groups, C<sub>1</sub>-C<sub>12</sub>  
alkoxy groups, silyloxy groups OSiR<sup>11</sup>R<sup>12</sup>R<sup>13</sup>, amino groups NR<sup>14</sup>R<sup>15</sup> or C<sub>1</sub>-  
C<sub>12</sub> thioether groups;

Y: is OH group, oxygen, sulfur, N-R<sup>10</sup> or P-R<sup>10</sup>;

N: is nitrogen atom;

R<sup>1</sup> to R<sup>9</sup>: are, independently of one another, hydrogen,  
C<sub>1</sub>-C<sub>12</sub> alkyl, wherein the alkyl groups may be branched or unbranched,  
C<sub>1</sub>-C<sub>12</sub> alkyl, substituted one or more times by identical or different  
substituents, selected from the group consisting of C<sub>1</sub>-C<sub>12</sub> alkyl groups,  
halogens, C<sub>1</sub>-C<sub>12</sub> alkoxy groups and C<sub>1</sub>-C<sub>12</sub> thioether groups,  
C<sub>7</sub>-C<sub>13</sub> aralkyl,  
C<sub>3</sub>-C<sub>12</sub> cycloalkyl,  
C<sub>3</sub>-C<sub>12</sub> cycloalkyl, substituted one or more times by identical or different  
substituents, selected from the group consisting of C<sub>1</sub>-C<sub>12</sub> alkyl groups,  
halogens, C<sub>1</sub>-C<sub>12</sub> alkoxy groups and C<sub>1</sub>-C<sub>12</sub> thioether groups,  
C<sub>6</sub>-C<sub>14</sub> aryl,  
C<sub>6</sub>-C<sub>14</sub> aryl, substituted by identical or different substituents, selected from one  
or more members of the group consisting of C<sub>1</sub>-C<sub>12</sub> alkyl groups, halogens,  
mono- or polyhalogenated C<sub>1</sub>-C<sub>12</sub> alkyl groups, C<sub>1</sub>-C<sub>12</sub> alkoxy groups, silyloxy  
groups OSiR<sup>11</sup>R<sup>12</sup>R<sup>13</sup>, amino groups NR<sup>14</sup>R<sup>15</sup> and C<sub>1</sub>-C<sub>12</sub> thioether groups,  
C<sub>1</sub>-C<sub>12</sub> alkoxy groups,  
silyloxy groups OSiR<sup>11</sup>R<sup>12</sup>R<sup>13</sup>,  
halogens halogen,  
NO<sub>2</sub> groups, or  
amino groups NR<sup>14</sup>R<sup>15</sup>,  
and wherein two adjacent radicals R<sup>1</sup> to R<sup>9</sup>, may optionally form with one  
another, a saturated or unsaturated 5- to 8-membered ring;

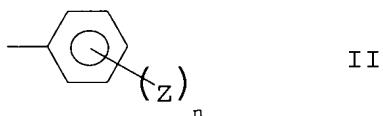
R<sup>10</sup> to R<sup>16</sup> independently of one another, are hydrogen,  
C<sub>1</sub>-C<sub>20</sub> alkyl groups, which may optionally be substituted by O(C<sub>1</sub>-C<sub>6</sub> alkyl) or

N(C<sub>1</sub>-C<sub>6</sub> alkyl)<sub>2</sub> groups,

C<sub>3</sub>-C<sub>12</sub> cycloalkyl groups,

C<sub>7</sub>-C<sub>13</sub> aralkyl radicals or C<sub>6</sub>-C<sub>14</sub> aryl groups;

and wherein at least one of the radicals R<sup>1</sup> to R<sup>9</sup> is in the form of a radical of the formula II below:



wherein Z is an electron-withdrawing group, and n is an integer from 1 to 5.

Claim 2 (Previously Presented): The process as claimed in claim 1, wherein Z in formula II is selected from one of the following electron-withdrawing radicals:

NO<sub>2</sub>, SO<sub>3</sub>, F, C<sub>m</sub>F<sub>2m+1</sub>, where m is an integer from 1 to 10, or a mono- or polyfluorinated aryl.

Claim 3 (Previously Presented): The process as claimed in claim 1, wherein Z in the formula II is CF<sub>3</sub>, and n is 2 or 3.

Claim 4 (Previously Presented): The process as claimed in claim 1, wherein the metal complex compound is used in combination with an activator.

Claim 5 (Previously Presented): The process as claimed in claim 1, wherein M in the formula I is nickel or palladium.

Claim 6 (Previously Presented): The process as claimed in claim 1, wherein ethylene is used exclusively as olefin.

Claim 7 (Previously Presented): The process as claimed in claim 1, wherein at least two olefins are used, selected from the group consisting of ethylene, propylene, 1-butene, 1-hexene, and styrene.

Claim 8 (Previously Presented): The process as claimed in claim 7, wherein ethylene is used in combination with propylene, 1-butene, 1-hexene or styrene.

Claim 9 (Previously Presented): The process as claimed in claim 1, wherein anionic, cationic and/or nonionic emulsifiers are used as the one or more dispersants.

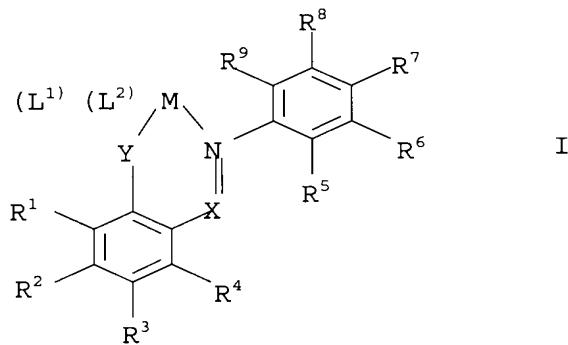
Claim 10 (Currently Amended ): The process as claimed in claim 1, wherein an organic solvent is present and is selected from the group consisting of aliphatic and aromatic hydrocarbons, fatty alcohols [[or]] and fatty acids are used as organic solvents.

Claim 11 (Previously Presented): An aqueous dispersion of a polyolefin or copolymer of two or more olefins, obtained by the process as claimed in claim 1.

Claim 12 (Previously Presented): An aqueous dispersion of a polyethylene or copolymer of ethylene, obtained by the process as claimed in claim 1.

Claims 13-20 (Canceled).

Claim 21 (Currently Amended): A process for preparing an aqueous polymer dispersion, by polymerizing one or more olefins in an aqueous medium in the presence of one or more dispersants, and, optionally, of organic solvents, said process comprising catalyzing the polymerization of said one or more olefins in the presence of one or more metal complex compounds of the formula I:



wherein the substituents and indices have the following meanings:

M is a transition metal from groups 7 to 10 of the periodic table of the elements;

L<sup>1</sup> denotes is selected from the group consisting of phosphanes (R<sup>16</sup>)<sub>x</sub>PH<sub>3-x</sub> [[or]] and amines (R<sup>16</sup>)<sub>x</sub>NH<sub>3-x</sub> with identical or different radicals R<sup>16</sup>, ethers (R<sup>16</sup>)<sub>2</sub>O, H<sub>2</sub>O, alcohols (R<sup>16</sup>)OH, pyridine, pyridine derivatives of the formula C<sub>5</sub>H<sub>5-x</sub>(R<sup>16</sup>)<sub>x</sub>N, CO, C<sub>1</sub>-C<sub>12</sub> alkyl nitriles, C<sub>6</sub>-C<sub>14</sub> aryl nitriles [[or]] and ethylenically unsaturated double bond systems, x denoting an integer from 0 to 3;

$L^2$  denotes is selected from the group consisting of halide ions, amide ions  
 $(R^{16})_hNH_{2-h}$ , h denoting an integer from 0 to 2, and also C<sub>1</sub>-C<sub>6</sub> alkyl anions,  
allyl anions, benzyl anions [[or]] and aryl anions,

and optionally,  $L^1$  and  $L^2$  may be linked to one another by one or more  
covalent bonds;

X: is CR or nitrogen atom (N);

R: is hydrogen,  
C<sub>1</sub>-C<sub>6</sub> alkyl groups,  
C<sub>7</sub>-C<sub>13</sub> aralkyl radicals, or  
C<sub>6</sub>-C<sub>14</sub> aryl groups, unsubstituted or substituted by one or more C<sub>1</sub>-C<sub>12</sub> alkyl  
groups, halogens, mono- or polyhalogenated C<sub>1</sub>-C<sub>12</sub> alkyl groups, C<sub>1</sub>-C<sub>12</sub>  
alkoxy groups, silyloxy groups OSiR<sup>11</sup>R<sup>12</sup>R<sup>13</sup>, amino groups NR<sup>14</sup>R<sup>15</sup> or C<sub>1</sub>-  
C<sub>12</sub> thioether groups;

Y: is OH group, oxygen, sulfur, N-R<sup>10</sup> or P-R<sup>10</sup>;

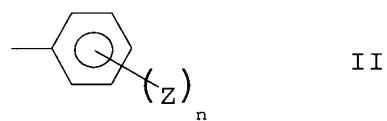
N: is nitrogen atom;

R<sup>1</sup> to R<sup>9</sup>: are, independently of one another, hydrogen,  
C<sub>1</sub>-C<sub>12</sub> alkyl, wherein the alkyl groups may be branched or unbranched,  
C<sub>1</sub>-C<sub>12</sub> alkyl, substituted one or more times by identical or different  
substituents, selected from the group consisting of C<sub>1</sub>-C<sub>12</sub> alkyl groups,

halogens, C<sub>1</sub>-C<sub>12</sub> alkoxy groups and C<sub>1</sub>-C<sub>12</sub> thioether groups,  
C<sub>7</sub>-C<sub>13</sub> aralkyl,  
C<sub>3</sub>-C<sub>12</sub> cycloalkyl,  
C<sub>3</sub>-C<sub>12</sub> cycloalkyl, substituted one or more times by identical or different substituents, selected from the group consisting of C<sub>1</sub>-C<sub>12</sub> alkyl groups, halogens, C<sub>1</sub>-C<sub>12</sub> alkoxy groups and C<sub>1</sub>-C<sub>12</sub> thioether groups,  
C<sub>6</sub>-C<sub>14</sub> aryl,  
C<sub>6</sub>-C<sub>14</sub> aryl, substituted by identical or different substituents, selected from one or more members of the group consisting of C<sub>1</sub>-C<sub>12</sub> alkyl groups, halogens, mono- or polyhalogenated C<sub>1</sub>-C<sub>12</sub> alkyl groups, C<sub>1</sub>-C<sub>12</sub> alkoxy groups, silyloxy groups OSiR<sup>11</sup>R<sup>12</sup>R<sup>13</sup>, amino groups NR<sup>14</sup>R<sup>15</sup> and C<sub>1</sub>-C<sub>12</sub> thioether groups,  
C<sub>1</sub>-C<sub>12</sub> alkoxy groups,  
silyloxy groups OSiR<sup>11</sup>R<sup>12</sup>R<sup>13</sup>,  
halogens halogen,  
NO<sub>2</sub> groups, or  
amino groups NR<sup>14</sup>R<sup>15</sup>,  
and wherein two adjacent radicals R<sup>1</sup> to R<sup>9</sup>, may optionally form with one another, a saturated or unsaturated 5- to 8-membered ring;

R<sup>10</sup> to R<sup>16</sup> independently of one another, are hydrogen,  
C<sub>1</sub>-C<sub>20</sub> alkyl groups, which may optionally be substituted by O(C<sub>1</sub>-C<sub>6</sub> alkyl) or N(C<sub>1</sub>-C<sub>6</sub> alkyl)<sub>2</sub> groups,  
C<sub>3</sub>-C<sub>12</sub> cycloalkyl groups,  
C<sub>7</sub>-C<sub>13</sub> aralkyl radicals or C<sub>6</sub>-C<sub>14</sub> aryl groups;

and wherein at least one of the radicals R<sup>1</sup> to R<sup>9</sup> is in the form of a radical of the formula II below:



wherein Z is an electron-withdrawing group, and n is an integer from 1 to 5.